

What is claimed is:

1. A component mounting system configured by connecting a plurality of devices for manufacturing a mounted board by placing and soldering a component onto the board, said component mounting system comprising:

- 5 (a) a printer for printing solder onto an electrode formed on said board;
- (b) a first inspection unit for detecting a position of said printed solder and outputting a solder position detection result;
- (c) a component mounting unit for picking up said component from a
10 component feeder carriage with a mounting head, and placing said component on said board;
- (d) a second inspection unit for detecting a position of said component placed and outputting a component position detection result;
- (e) a soldering unit for soldering said component onto said board by
15 heating and melting said solder; and
- (f) a main controller for updating at least one of a control parameter for controlling an operation of said printer and a control parameter for controlling an operation of said component mounting unit based on at least one of said solder position detection result and said component position detection result.

20 2. The component mounting system as defined in Claim 1 further comprising a third inspection unit for inspecting a mounting condition by recognizing said component after said soldering, and outputting a mounting inspection result.

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3. A component mounting system configured by connecting a plurality of devices for manufacturing a mounted board by placing and soldering a component onto the board, said component mounting system comprising:

(a) printer for printing solder onto an electrode formed on said board;

(b) a first inspection unit for detecting a position of said printed solder and outputting a solder position detection result;

(c) a component mounting unit for picking up said component from a feeder carriage with a mounting head and placing said component onto said board;

(d) a second inspection unit for detecting a position of said component placed and outputting a component position detection result;

(e) a soldering unit for soldering said component onto said board by heating and melting said solder;

(f) a third inspection unit for inspecting a mounting condition by recognizing said component after said soldering, and outputting a mounting inspection result; and

(g) abnormality evaluation means for determining the presence of any abnormal operation in at least one of said printer, said component mounting unit, and said soldering unit based on at least one of said solder position detection result, said component position detection result, and said mounting inspection result.

4. A component mounting method for manufacturing a mounted board by placing and soldering a component onto a board using a component mounting system configured by connecting a plurality of devices, said method comprising:

(a) a printing step for printing solder on an electrode formed on said board using a printer;

(b) a solder position detection step for detecting a position of said printed solder and outputting a solder position detection result using a first inspection unit;

5 (c) a placement step for picking up said component from a component feeder carriage and placing said component onto said board using a mounting head in a component mounting unit;

(d) a component position detection step for detecting a position of said component placed and outputting a component position detection resulting using a second inspection unit; and

10 (e) a soldering step for soldering said component onto said board by heating and melting solder using a soldering unit;

wherein at least one of a control parameter for controlling an operation of said printer and a control parameter for controlling an operation of said component mounting unit is updated based on at least one of said solder position
15 detection result and said component position detection result while executing said steps.

5. The mounting method as defined in Claim 4, said method further comprising a mounting inspection step for inspecting a mounting condition by
20 recognizing said component after said soldering, and outputting a mounting inspection result using a third inspection unit;

wherein a control parameter for controlling an operation of said soldering unit is updated based on said mounting inspection result.

6. A component mounting method for manufacturing a mounted board by placing and soldering a component onto a board using a component mounting system configured by connecting a plurality of devices, said method comprising:

(a) a printing step for printing solder on an electrode formed on said board using a printer;

(b) a solder position detection step for detecting a position of said printed solder and outputting a solder position detection result using a first inspection unit;

(c) a placement step for picking up said component from a component feeder carriage and placing said component onto said board using a mounting head in a component mounting unit;

(d) a component position detection step for detecting a position of said component placed and outputting a component position detection result using a second inspection unit;

(e) a soldering step for soldering said component onto said board by heating and melting solder using a soldering unit; and

(f) a mounting inspection step for inspecting a mounting condition by recognizing said component after said soldering, and outputting a mounting inspection result using a third inspection unit;

wherein the presence of any abnormal operation in at least one of said printer, said component mounting unit, and said soldering unit is determined based on at least one of said solder position detection result, said component position detection result, and said mounting inspection result while executing said steps.